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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,127	04/19/2004	Mitchell Kyle	44564.004	2311

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Intellectual Property Department
DEWITT ROSS & STEVENS, S.C.
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EXAMINER

HENRY, MICHAEL C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,127

Applicant(s)

KYLE, MITCHELL

Examiner

Michael C. Henry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following office action is a responsive to the Amendment filed, 01/03/06.

The amendment filed 01/03/06 affects the application, 10/827,127 as follows:

1. Applicant arguments are considered but are not found convincing. Claims 14-18 are pending in the application

The responsive to applicants' arguments is contained herein below.

Claims 14-18 are pending in the application

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 provides for "the use of of zinc oxide and sodium heparin admixed with non-medicinal carriers " but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. In addition, it should be noted that "the use of" is not a statutory class of invention. It is suggested that applicant rewrite said claim as a method claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 18 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saliba, Jr (US 4,879,282) in combination with Costello (US 5,874,094).

In claim 14, applicant claims "A composition for treating insect bites and stings, comprising a therapeutically effective amount of zinc oxide and sodium heparin admixed with pharmaceutically acceptable non-medicinal carriers selected from the group consisting of carboxymethylcellulose, glycerin, polysorbate and water, wherein said effective amount for zinc oxide is in the range of 1-20 mg/g and for sodium heparin is in the range of 100-300 USP units/g of said composition. Claim 15 is drawn to the composition according to claim 14, wherein said effective amount for zinc oxide is 5 mg/g and for sodium heparin is 160 USP units/g of said composition.

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Saliba, Jr discloses a composition comprising an effective amount of sodium heparin which can be used for treating insect bites (see abstract and col. 7, lines 25-35).

Castello discloses that zinc oxide can be used to treat insect bites (see col. 4, lines 36-54).

The difference between applicant's claimed composition and the composition taught by Saliba, Jr is that applicant also uses a zinc oxide in their composition and a non-medicinal carrier. However, Castello discloses that zinc oxide can be used to treat insect bites, and the use of a non-medicinal carriers such as water in said composition is common in the art.

It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made, in view of Saliba, Jr and Costello, to have prepared a composition comprising a combination of sodium heparin and zinc oxide to treat insect bites, since the combination of compounds that are used to treat the same diseases or condition are well known in the art. More specifically, it is obvious to combine individual compositions taught to have the same utility to form a new composition for the very same purpose. In re Kerkhoven, 626 F.2d 846, 205 U.S.P.Q. 1069 (C.C.P.A. 1980).

One having ordinary skill in the art would have been motivated, in view of Saliba and Costello, to have prepare a composition comprising a combination of sodium heparin and zinc oxide to treat insect bites, because a skilled artisan would reasonably be expected to prepare a composition comprising a combination of the compounds taught by Saliba and costello, to treat insect bites based on type and/or severity of the insect bite. It should be noted that the use of specific amounts of sodium heparin and zinc oxide and depends factors such as severity and type of the insect bite treated.

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Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saliba, Jr (US 4,879,282) in combination with Costello (US 5,874,094).

In claim 16, applicant claims "A method for treating insect bites and stings, comprising applying topically to the affected area an effective amount of zinc oxide and sodium heparin admixed with pharmaceutically acceptable non-medicinal carriers selected from the group consisting of carboxymethylcellulose, glycerin, polysorbate and water, wherein said effective amount for zinc oxide is in the range of 1-20 mg/g and for sodium heparin is in the range of 100-300 USP units/g of the admixture. Claim 17 is drawn to the composition according to claim 16, wherein said effective amount for zinc oxide is 5 mg/g and for sodium heparin is 160 USP units/g of said admixture.

Saliba, Jr discloses a method of treating insect bites comprising administering topically an effective amount of sodium heparin (see abstract and col. 7, lines 25-35).

Castello discloses that zinc oxide can be used to treat insect bites (see col. 4, lines 36-54).

The difference between applicant's claimed method and the method taught by Saliba, Jr is that applicant also uses a zinc oxide in their composition and a non-medicinal carrier. However, Castello discloses that zinc oxide can be used to treat insect bites, and the use of a non-medicinal carriers such as water in said composition is common in the art.

It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made, in view of Saliba, Jr and Costello, to have used the method of Saliba, Jr to treat insect bites with a composition comprising a combination of sodium heparin and zinc oxide, since the combination of compounds that are used to treat the same diseases or condition are well known in the art. More specifically, it is obvious to combine individual compositions taught to

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have the same utility to form a new composition for the very same purpose. In re Kerkhoven, 626 F.2d 846, 205 U.S.P.Q. 1069 (C.C.P.A. 1980).

One having ordinary skill in the art would have been motivated, in view of Saliba, Jr and Costello, to have use the method of Saliba, Jr to treat insect bites with a composition comprising a combination of sodium heparin and zinc oxide, because a skilled artisan would reasonably be expected to prepare a composition comprising a combination of the compounds taught by Saliba and Costello, to treat insect bites based on type and/or severity of the insect bite. It should be noted that the use of specific amounts of sodium heparin and zinc oxide depends on factors such as severity and type of the insect bite treated.

Response to Arguments

Applicant's arguments with respect to claim 14-18 have been considered but are not found convincing.

The applicant argues that his "use of" claim is an acceptable method/process claim because it recites positive steps. However, applicant claim as written is not an acceptable claim since "the use of" is not a statutory class of invention. Moreover, applicant claims the use of a composition rather than the method of using the said composition. It is particularly unclear what uses are involved and how they are involved in the method/process applicant is intending to encompass. Thus, the intended steps how this use is actually practiced has not been delineated in said claim.

The applicant argues that when the presently claimed invention is placed out of mind, and the cited references are objectively considered for all they suggest it cannot fairly be said that one of skill would be led to combine them to obtain the claimed invention. However, both Saliba, Jr

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and Costello, teach that their compounds or compositions can be used to treat insect bites and thus, it is obvious to combine individual compositions taught to have the same utility to form a new composition for the very same purpose. In re Kerkhoven, 626 F.2d 846, 205 U.S.P.Q. 1069 (C.C.P.A. 1980). The applicant argues that Saliba contends that heparin is effective when administered in almost any manner, to almost any ailment - and it is questionable whether one of ordinary skill would find this credible. However, without evidence to the contrary that refutes the effectiveness of heparin in treating the ailments disclosed by Saliba applicant's assumptions is discredited as lacking any factual basis. Furthermore, Saliba et al.'s patent is applied herein by the examiner with reference to the treatment of insect bites and not to any other ailment or condition. The applicant argues that when heparin is to be applied topically, it should be applied at concentrations of 1,500 IU – 5,000 IU per ml (column 6 line 66 - column 7 line 35). and it should be accompanied by an acidic carrier (preferably with a PH of about 5.5); see column 7 lines 11-16. However, Saliba discloses that the application of heparin at concentrations of 1,500 IU – 5,000 IU per ml will be most efficacious (see col. 7, lines 25-35). Thus, this does not mean that concentrations outside this range will not be efficacious or effective although they may not be **most** efficacious. Moreover, the said concentration is in IU per ml and the amount or number of units to be used is not limited by Saliba since the amount of units used depends on the amount of ml(s) of the heparin used or applied, and Saliba does not require the use of any particular amount of ml(s) of heparin to be used. It should be noted at this juncture that applicant's claimed amounts of heparin is recited in units per gram (g) of the composition (e.g., 100-300 units/g, claim 1), thus the amount of units claimed by applicant in said method would also depends on the amount or number of grams (g) of the composition applied or used and thus the

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said amounts of units of heparin which can be used by Saliba and applicant can be equal.

Furthermore, Saliba disclose that it is most efficacious to apply the heparin solution in a carrier having an acidic pH and particularly a pH of about 5.5 (column 7 lines 11-16). However, this does not imply that the carrier has to be at an acidic pH to be efficacious or effective, but only to be **most** efficacious. In addition, applicant composition is not limited to any particular pH and in fact applicant's claimed carrier (carboxymethylcellulose carrier) should have an acidic pH. The applicant argues that Costello discusses a topical cream using aloe vera as its active ingredient, along with vitamin E and zinc oxide (see abstract; column 3 lines 13-23). However, Costello discloses that zinc oxide is also an active ingredient or agent (see abstract and col. 4, lines 42 to 53). The applicant argues that Saliba suggest the use of heparin in a far greater amount than the amount cited: 1,500-5,000 IU, as compared to the 100-300 USP (IU) claimed. On the contrary, Saliba discloses that the application of heparin at concentrations of 1,500 IU – 5,000 IU per ml will be most efficacious (see col. 7, lines 25-35). Thus, this does not mean that concentrations outside this range will not be efficacious or effective although they may not be **most** efficacious. Moreover, the said concentration is in IU per ml and the amount or number of units to be used is not limited by Saliba since the amount of units used depends on the amount of ml(s) of the heparin used or applied, and Saliba does not require the use of any particular amount of ml(s) of heparin to be used. It should be noted at this juncture that applicant's claimed amounts of heparin is recited in units per gram (g) of the composition (e.g., 100-300 units/g, claim 1), thus the amount of units claimed by applicant in said method would also depends on the amount or number of grams (g) of the composition applied or used and thus the said amounts of units of heparin which can be used by Saliba and applicant can be equal. The applicant argues that “

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Saliba plainly suggest against the use of materials such as zinc oxide, which are fundamentally basic to neutral in pH, with heparin, at least when used topically (as claimed). However, Saliba does not plainly suggest or vaguely suggest that one cannot add materials such as zinc oxide to heparin when used topically (as claimed). Firstly, Saliba does not suggest that zinc oxide is a carrier nor that zinc oxide or other compounds cannot be combined or added to heparin. Furthermore, Saliba does not suggest that compounds with pH's that are not acidic cannot be combined with heparin. What Saliba suggests is that the heparin solution is most efficacious if an acidic carrier is used. In fact, the carrier and not the zinc oxide (which is not a carrier) or other added compounds, will determine the final pH of the heparin solution. Also, applicant states that topical zinc oxide has an approximately neutral (if not basic) pH, ranging from between 6.95 and 7.37, this implies that topical zinc oxide is acidic at pH 6.95 (i.e., less than 7.00). Thus, Saliba does suggest that one cannot add materials such as zinc oxide to heparin when used topically. The applicant argues that Costello suggest a different wt% of zinc oxide than applicant. However, the use of different wt% of zinc oxide depends on factors like the severity of the insect bite, the type of subject treated and the other ingredients that comprises the composition such as heparin. The applicant argues that Saliba and Costello suggest that a topical mixture of heparin and aloe vera be used. However, Saliba and Costello also suggest that a topical mixture of heparin and zinc oxide be used, since zinc oxide (like aloe vera) is also a disclosed active ingredient. Applicant argues that Saliba suggest that any ingredient added to a topical composition should be acidic (unlike zinc oxide). However, Saliba do not suggest that any ingredient added to a topical composition should be acidic. As addressed above, Saliba suggest that the preferred carrier is an acidic (see above). Applicant argues that if one combine

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heparin and zinc oxide per Saliba and Costello, it would have vastly greater amounts of both heparin and zinc oxide than the combination claimed. However, the use of different amount of heparin and zinc oxide depends on factors like the severity of the insect bite, the type of subject treated.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8:30 am to 5:00 pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang, Ph.D can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

Michael C. Henry

 4/3/06

Shaojia Anna Jiang, Ph.D.
Supervisory Patent Examiner
Art Unit 1623

March 31, 2006.